

AMENDMENTS TO THE CLAIMS

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Withdrawn, Currently Amended) A method for producing the porous film of claim 12, comprising the steps of immersing a porous film base in a solution of a chemical-resistant polymeric compound, the porous film base comprising a multiplicity of communicating micropores having an average pore size of more than 0.01 and less than 5 μm , or spraying or applying the solution to the porous film base; and drying the resulting article to cover the porous film base with the chemical-resistant polymeric compound, without immersing the porous film base in a non-solvent of the chemical-resistant polymeric compound or a precursor thereof, and without immersing the porous film base in a solution containing a non-solvent of the chemical-resistant polymeric compound or a precursor thereof, to thereby yield the porous film.
6. (Withdrawn, Currently Amended) A method for producing the porous film of claim 12, comprising the steps of immersing a porous film base in a solution of a precursor of a chemical-resistant polymeric compound, the porous film base comprising a multiplicity of

communicating micropores having an average pore size of 0.01 to 10 μm , or spraying or applying the solution to the porous film base; drying the resulting article; and subjecting the dried article to treatment with at least one selected from the group consisting of heat, ultraviolet rays, visible radiations, electron beams, and radioactive rays to cover the porous film base with the chemical-resistant polymeric compound to thereby yield the porous film.

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Previously Presented) A porous film comprising a film base and a coat of a chemical-resistant polymeric compound,

the film base produced by a phase conversion method in which mixtures containing polymers are cast as films and then introduced to solidifying liquids,

the coat of the chemical-resistant polymeric compound forming a thin solid layer over cell wall surfaces throughout the porous structure of the film base, and formed by subjecting a solution of a chemical-resistant polymeric compound or a precursor thereof dissolved in a solvent which can dissolve the polymeric compound or a precursor thereof to a coat forming

procedure, with or without further subjecting the coat formed to treatment with at least one selected from the group consisting of heat, ultraviolet rays, visible radiations, electron beams, and radioactive rays,

wherein:

the porous film includes a multiplicity of communicating micropores having an average pore size of $0.01\mu\text{m}$ or more and $5\mu\text{m}$ or less;

an average rate of open pores inside the porous film (porosity) is 30% to 80%;

the porous film maintains the properties of the film base;

the film base comprises at least one selected from the group consisting of amide-imide polymers, imide polymers, polyethersulfones, polysulfones, acrylic polymers, and cellulose acetates;

the coat of the chemical-resistant polymeric compound comprises at least one selected from the group consisting of phenolic resins, urea resins, melamine resins, benzoguanamine resins, polyimide resins, epoxy resins, benzoxazine resins, polypropylene resins, polyurethane resins, fluororesins, alkyd resins, cellulose acetate resins, phthalic resins, maleic resins, silicone resins, triazine resins, furan resins, polyester resins, xylene resins, poly(vinyl alcohol)s, ethylene/vinyl alcohol copolymers, chitins, and chitosans; and

an amount of the coat of the chemical-resistant polymeric compound is 0.01 to 50 percent by weight relative to the porous film.

12. (Currently Amended) ~~The porous film of claim 11,~~ A porous film comprising a film base and a coat of a chemical-resistant polymeric compound.

the film base produced by a phase conversion method in which mixtures containing polymers are cast as films and then introduced to solidifying liquids.

the coat of the chemical-resistant polymeric compound forming a thin solid layer over cell wall surfaces throughout the porous structure of the film base, and formed by subjecting a solution of a chemical-resistant polymeric compound or a precursor thereof dissolved in a solvent which can dissolve the polymeric compound or a precursor thereof to a coat forming procedure, with or without further subjecting the coat formed to treatment with at least one selected from the group consisting of heat, ultraviolet rays, visible radiations, electron beams, and radioactive rays,

wherein:

the porous film includes a multiplicity of communicating micropores having an average pore size of 0.01 μ m or more and 5 μ m or less;

an average rate of open pores inside the porous film (porosity) is 30% to 80%;

the porous film maintains the properties of the film base;

an amount of the coat of the chemical-resistant polymeric compound is 0.01 to 50 percent by weight relative to the porous film;

wherein the film base comprises amide-imide polymers or imide polymers, and

the coat of the chemical-resistant polymeric compound comprises at least one selected from the group consisting of phenolic resins, epoxy resins, fluororesins, and ethylene/vinyl alcohol copolymers.